optera. Williston did something with part of the Diptera. The Lepidoptera so far as they represented the species of Middle-America were studied by Godman and by Herbert Druce. Champion wrote up a part of the Coleoptera, but the beetles of Brazil as a whole remain for the most part to be studied; P. R. Uhler has described many of the Hemiptera, as did also W. L. Distant. The Orthoptera have been studied by Dr. Lawrence Bruner and the Odonata by Dr. P. P. Calvert.

Nevertheless there remains a residuum of unstudied and undetermined material in England and America garnered by H. H. Smith which still calls for attention and which probably represents many thousands of nondescript species, especially among the micro-coleoptera.

Herbert H. Smith and William Doherty, both Americans, were undoubtedly the two ablest zoological collectors in the field during the last two decades of the Nineteenth and the first decade of the Twentieth Century.

W. J. HOLLAND. Ocean House, Watch Hill, R. I., Aug. 25, 1919.

## Two new Crane-flies from California (Tipulidae, Diptera).

By Charles P. Alexander, State Laboratory of Natural History, Urbana, Illinois.

Erioptera (Acyphona) sparsa sp. n.

General coloration yellow; femora with a narrow dark-brown band just before the tips; wings subhyaline with sparse brown markings.

Q. Length 5.8 mm.; wing 6.4 mm.

Rostrum and palpi dark brown. Antennae with the basal segments yellowish, the apical half brown. Head dark.

Mesonotal praescutum dull yellow with three brown stripes; scutellum yellowish. Pleura more infumed. Halteres pale, the knobs orange-yellow. Legs with the coxae dull yellow: trochanters yellow; femora yellowish with a narrow brown ring that is close before the tip; tibiae yellow, the tips narrowly and indistinctly darkened: tarsi brown, the metatarsi paler basally. Wings pale yellowish subhyaline with dark-brown markings, including a narrow seam along the cord; small spots at the base of the wing and the origin of the sector;

larger marks at the ends of the longitudinal veins, R4+5 excepted. Venation: Similar to the closely related E. armillaris, but m slightly before midlength of M3.

Abdomen dull yellow, the pleural region brownish. Ovipositor very long and slender.

Holotype: 9, Berkeley, California, May 28, 1915 (M. C. Van Duzee).

Type in the collection of the author.

E. sparsa is very similar to E. armillaris O. S. of the Eastern United States, but the wings are paler with a much more restricted pattern, the marks at the origin of the sector and the ends of the anal veins small, and the femoral brown ring narrow and closer to the tips.

## Limnophila hepatica sp. n.

General coloration dark liver-brown, the thorax unstriped; wings with a faint brownish suffusion, the stigma and a blotch at r-m brown.

Q. Length 7.5 mm.; wing 8 mm.

Rostrum and palpi dark brown. Antennae dark brown, the first scapal segment elongated. Head dark gray.

Mesonotum dark liver-brown, shiny, without stripes, the postnotum a little more reddish. Pleura dark brown, the dorsopleural membranes more yellowish. Halteres pale, the knobs a little darkened, the stems rather elongated. Legs with the coxae yellowish, the fore coxae a little darkened; trochanters yellowish; legs except the fore pair broken, these latter with the femora dark brown, the basal quarter more yellowish; tibiae and tarsi dark brown. Wings with a faint brown suffusion; stigma large, oval, dark brown; a brownish cloud on r-m and adjoining veins; base of the wing slightly yellowish; veins dark brown. Venation: ScI ending opposite the basal deflection of R4+5; r removed from the tip of RI; Rs long; R2+3 a little shorter than the basal deflection of CuI; r-m in alignment with the basal deflections of R4+5 and MI+2; cell  $Ist\ M2$  small; petiole of cell MI about as long as this cell; basal deflection of CuI slightly beyond midlength of cell  $Ist\ M2$ .

Abdominal tergites dark brown, the basal shield of the ovipositor dull black, the valves long and slender, rusty in color; sternites dull yellowish.

Holotype: 2, Fieldbrook, California, May 18, 1903 (H. S. Barber).

Type in the collection of the United States National Museum.